

## JACK PARKER RESUME

Two addresses, summer and winter, about 6 months each.

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1. LIFE STATISTICS. Born in England 1930. Migrated to Canada 1953. To US in 1954. Naturalized U.S. citizen 1974. Married, one wife, four children, numerous grandchildren and great grandchildren.
2. EXPERIENCE. Dates are approximate. There are some overlaps.
  - a) Since 1971 - self employed. Doing business as "Jack Parker and Associates Incorporated". Working with clients, here and abroad, on problems in "rock mechanics" - which I define as "an understanding of rock properties and behavior - and what to do about it".

Some projects are one-time, trouble-shooting jobs. Others are on-going, with regular inspections and reports.

Most jobs begin with a problem, a telephone call for help, a visit, a remedy, and in some cases further cooperation to ensure that rock-related problems do not get out of hand.

Considered retirement in 1995 but that did not happen because of a continuing demand for practical help (as opposed to computer analyses). As of today (2011) the mind is willing and eager to serve but the body is reluctant to travel.

The work includes design of underground mining methods and layouts, especially consideration of strengths and stresses in mine roof, pillars and floor, and supports. Modest lab tests are sometimes used, and occasionally simple, low-cost instrumentation underground. The emphasis is on observations at the mine and half a century of experience with similar problems at several hundred other mines, including solutions to those problems. Often the solution is simple, sometimes so obvious that the mine operator is, at first, skeptical.

Application of computer modeling to mine design and practices is specifically avoided because so often basic assumptions are inadequate, invalid and thus misleading.

Have taught seminars in practical rock mechanics at Michigan Technological University, U of Nevada at Reno, U of Missouri at Kansas City, and at Cambrian College in Sudbury, Ontario.

At the request of industry a dozen or two additional seminars, two to five days each, have been presented at White Pine, MI, Michigan Tech, Beckley W VA, Kansas City, MO, and at individual mining properties.

During graduate work taught courses in glacial geology and geomorphology at Michigan Tech.

During 1971 and '72 taught rock mechanics and rock fragmentation at Michigan Tech (two days/week).

- b) 1961 - 1971, ten years at the White Pine copper mine, White Pine, MI.

First year was as a mine foreman, on underground development.

Next two years as a research engineer, on drilling, blasting and roof-bolting projects, including hands-on introduction of ANFO underground, working with drillers and powdermen.

Seven years as Director of Rock Mechanics, with 3 or 4 engineers and up to 10 technicians, dealing mainly with mining layouts, mining methods and mine stability and supports for this 25,000 tons/day hardrock underground operation.

- c) 1961, one year with R. L. Loofbourow, mining consultant, out of Minneapolis.
- d) 1954 - 1961, at Michigan Tech. Four years on two B.S. degrees followed by three years for a Master's degree while teaching part-time in the Geology Dept. Worked during all vacations in gold and nickel and iron mines in Ontario and Quebec.
- e) 1953 - 1954, having emigrated from U.K. to Canada, worked as a surveyor/engineer on mine shaft-sinking and development projects on Hudson's Bay NWT, and at Sudbury, Haileybury, Bancroft and North Bay Ontario, for Temiskaming Construction Ltd.

- f) 1946 -1953, worked in coal mines in England, for one year as an office boy, then six years in surveying, planning and engineering at a group of four mines, under the National Coal Board.

### 3. EDUCATION.

High school in England.

Night school and part-time further schooling in England, under National Coal Board education scheme.

1954, to Michigan Tech.

1958, B.S. Mining Engineering.

B.S. Geological Engineering.

Grade point average 3.75/4.00.

Position in class 4/384.

1960, M.S. Geology (Thesis: Sublacustrine Geology of Eastern Lake Superior).

Grade point average 4.00/4.00.

### 4. PUBLICATIONS AND AWARDS. Authors are listed alphabetically.

Parker and Scott, Instrumentation of Room and Pillar Workings, Proc. 6<sup>th</sup> Symp on Rock Mechanics, Rolla MO 1964.

Cummings and Parker, The White Pine Hydraulic Cell, Proc. 6<sup>th</sup> Symp on Rock Mechanics, Rolla MO 1964.

Parker, The White Pine Sagmeter, E/MJ May 1965.

Scott, Michels and Parker, The Role of Rock Mechanics in Mine Stability, National Safety Council Newsletter, March 1966.

Garfield and Parker, Rock Mechanics, an Operations Tool at White Pine, Min Cong Journal, June 1966.

Parker, How Moisture Affects Mine Openings, E/MJ Nov 1966.

Parker, Mining in a Lateral Stress Field at White Pine, Can IMM Trans v LXIX 1966. "A seminal paper".

Barrientos and Parker, Use of the Pressure Arch in Mine Design, AIME preprint 69-AM-369, Sept 1969. Also AIME Trans Sept 1974. SME Robert Peele award

for "significant achievement in authorship in the fields of mining and Rock Mechanics, Rolla MO 1964.

Agapito and Parker, Development of a Better Rockbolt Assembly at White Pine, AIME annual meeting Feb 1970.

Parker, Temperature and Humidity Affect Strength of Rock Structures at White Pine, SME Trans June 1970.

Caverson and Parker, Roofbolts Hold Best With Resin, Min Eng May 1971.

Parker, PRACTICAL ROCK MECHANICS FOR MINERS, a series of seven articles in E/MJ, beginning June 1973. Several thousand reprints still in use, plus thousands of unauthorized photocopies, including a translation into Spanish by the Mexican equivalent of the USBM. Good for business.

Parker, the First Copper Miners in Michigan, Compressed Air Magazine, Jan 1975.

Petersen, Plumeau and Parker, Yielding Pillars and Pressure Arches at Cayuga Salt Mine, NY, SME preprint, Keystone 1977. Also E/MJ May 1979. AIME award for "outstanding contributions in rock mechanics, 1981".

Parker, Pillar Design - Problems or Opportunities? 1<sup>st</sup> Conf on Stability in Underground Mining, Vancouver, Aug 1982.

Parker, Mine Pillar Design in 1993: Computers Have Become the Opiate of Mining Engineers, Min Eng two parts, July and Aug 1993.

Parker, Everybody goes Underground Eventually, Aggregates Manager, June 1996.

Parker, The Misapplication of Computer Technology to Mine Design - and the Home Remedy, Agg Man Oct 1999.

Parker, Another Misapplication of Computer Technology, this time to Mine Pillar Design (and Another Home Remedy) , Agg Man May 2000.

A major publication on RESIN BOLTING, followed research at Mich Tech, under USBM contract #JO 366004, July 1977. Parker reported segment on the field research in some 40 coal mines in the US, France and England, with many illustrations.

## 5. A PARTIAL LIST OF CLIENTS.

Allied Chemical, WY, trona.  
AMAX, IN, MI, NM, WY, coal, copper, potash, trona.  
American Electric Power, UT, coal.  
American Mine Services, WI, copper, gold.  
Americold, Kansas City KS, underground limestone and space development.  
Anaconda, MT, copper.  
Archibald Mining and Engineering Consultants, consulting on underground limestone.  
ASARCO, TN and CO, lead, zinc.  
Bardon-Trimount, MA, crushed rock.  
Bass Pro-Shops, MO, underground space.  
Black River Mining, KY, limestone.  
Boatmen's Bank, MO, limestone.  
Boone Quarries, MO, underground limestone and space.  
Callahan Mining, MI, gold.  
Callaway Mining, KC MO, underground mining and space.  
Calmat Corp, CA, crushed rock, underground?  
Canadian Rock Salt, ONT and Nova Scotia, rocksalt .  
Cargill Salt, LA and NY, rocksalt.  
Celtite, resin bolting.  
Cliffs Engineering, CO, nahcolite, (solution mining).  
Commercial Distribution Center, KC MO, underground space.  
Commercial Stone, PA, limestone.  
Continental Cement, MO, limestone.  
Continental Minerals, NV, talc.  
Curragh Resources, Nova Scotia, coal.  
Cyprus Mines, CO, PA and WY, coal.  
Detroit Salt, MI, rocksalt.  
Dickenson Red Lake, ONT, gold.  
Domtar Minerals, ONT, LA and MI, gypsum and rocksalt.  
Dravo, KY, limestone.  
Earth Sciences Inc, UT, uranium.  
East Malartic, Quebec, gold.  
Elmhurst Crushed Stone, IL, limestone.  
Environment One, MA, underground fire detection.  
Exxon, WY, uranium.  
Fairmount Development, KC MO, underground space.  
Garney Companies, KC MO, underground space.  
Geneva-Pacific, AK, copper.  
Grasis Corp, KC MO, underground space.  
Greenbrier Aggregates, PA, limestone.  
Griesemer Quarries, MO, limestone and underground space.  
Hilltop Basic Resources, KY, limestone underground?  
Holland Quarries, KC KS, underground limestone and space.

Homestake Mining, SD, gold.  
Hunt-Midwest, KC MO, underground limestone and space.  
Inland Steel, IL, coal.  
International Salt, OH and NY, rocksalt.  
J M Huber Corp, IL and GA, limestone.  
Journagan Crushed Stone, MO, limestone underground?  
Kemmerer Coal, WY, coal.  
Kerr-McGee, IL and NM, coal, potash.  
Kimberley Clark, MI, mining leases.  
Kincaid Stone, IL, limestone.  
LaFarge, MO and NY, limestone.  
Lehman, MN, platinum group minerals deep underground.  
Lone Star Cement, W VA, limestone.  
Loring Quarries, KC KS, limestone and underground space.  
Louisiana Land, MI, copper.  
Louisville Crushed Stone, KY, limestone.  
Macassa Mines, ONT, gold.  
Maple Meadow, W VA, coal.  
Marblehead Lime, limestone.  
Marley Engineering, KC MO, underground space.  
Martin-Marietta, IA, NE and MO, limestone.  
MICARE, Mexico, coal.  
Mineral Technologies, CA, limestone.  
Mingo-Logan Coal, W VA, coal.  
Mississippi Lime, IL, MO and VA, limestone.  
Missouri Limestone, MO, limestone.  
Monterey Coal, (EXXON) IL and W VA, coal.  
Morton Salt, OH, Nova Scotia and LA, rock salt.  
National Park Services, UT, tunnel stability.  
National Wildlife Federation, MI, Kennecott Eagle Mine permitting.  
NM Attorney General, re WIPP at Carlsbad NM.  
Noranda Mines, Quebec, gold.  
Orvana MI, copper sulfide.  
Ozark Lead, MO, lead.  
Parkville Stone, KC MO, limestone and underground space.  
Parsons-Jurden, ID, vanadium.  
Pfizer, NV talc, CA and MD limestone.  
Pioneer-Mid Atlantic, PA, limestone.  
Principia College, IL, limestone underground?  
Reocin Mines, Spain, zinc, lead.  
Riverside Cement, CA, limestone.  
Rogers Group, IN, KY and TN, limestone.  
Royal Oak Mines, ONT, gold.  
Sellersburg Stone, IN, limestone underground.  
Soiltest Inc, IL, instrumentation.  
S E Public Services, KC KS, underground limestone and space.

Southern Illinois Stone, limestone.  
Southern Utah Coal, UT, coal.  
Stoneco, IN and OH, limestone underground?  
Texasgulf, WY trona and NB limestone.  
3M, MN, resin roof-support systems.  
Timna Mines, Israel, copper.  
Underground Developers Assn, KC MO, underground space.  
Unisil, MN and WI, silica sand.  
Unocal, CO, oil shale.  
USBM, numerous projects.  
U.S Steel, W VA, coal.  
UV Industries, NM, copper, zinc.  
Westinghouse, CO, instrumentation.  
Westroc, ONT and MI, gypsum.  
White Pine Copper , MI, copper.  
Wimpey Minerals, PA, limestone.  
Winchester Center, KC MO, underground space.  
WIPP, Waste Isolation Pilot Project, NM, in rock salt.  
Yava Mines, Nova Scotia, lead.

All the above were underground operations. Those followed by a question mark (e.g. Stoneco, IN and OH, limestone?) were contemplating going underground.

Expert witness in more than a dozen law cases.

Registered Professional Geologist in MO, #0088, now lapsed.

Updated May 9<sup>th</sup> 2011